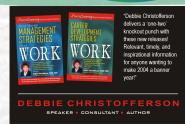


Thursday, August 10, 2006
Debbie Christofferson, CISSP, CISM
Sapphire-Security Services LLC







- Debbie knows security from the ground up, based on 20 years first hand Fortune 500 experience across the U.S., Europe, and Asia with Intel Corporation.
- She is President of Sapphire-Security Services LLC.
- Debbie is a published author, and writes a column for technology trends and careers.
- She's on the board for Phoenix ISSA, SDSUG, and a member of the ITT Technical Institute's Advisory Board. Debbie is a member of the National Speakers Association, the Arizona Technology Council, ISACA, ATW, and OWIT.
  - Call Debbie if you need an expert in security strategy and management, for consulting, speaking, training or writing.

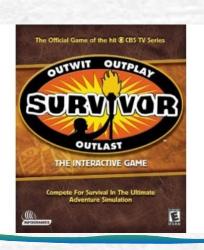


### Session Overview

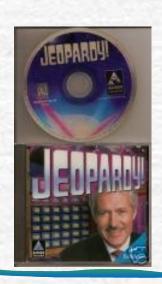
Security has evolved from a home-grown affair to a critical front facing capability required for organization success. Have you evolved with it? What can the CISO expect in now visible world of security in the coming decade? How do you leverage coming trends, career and management opportunities, and the changing face of threat and organizational risk? How will you support the ongoing evolution in support of global commerce and communication? This session identifies trends and opportunities for CISOs of the coming decade and helps you build a strategic plan to address them.

### Will your business be outcast?

Security today is reactive and immature. Many organizations lack a security strategy. There is no way to guard against the weakest linkthe end user. Yet security has surfaced to become a critical business challenge, ...and none of us wears an immunity necklace.



Most important topic in IT world



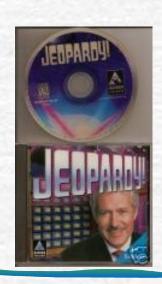
2. Estimated to account for 7% of global trade



3. Organization paid USD\$34M for security breach



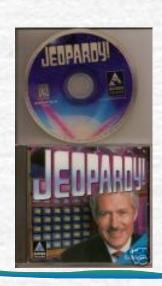
4. Company paid USD\$50M for misstating earnings



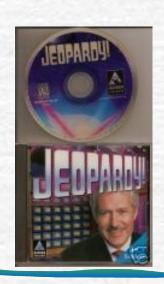
5. #1 method used in 2005 to assess risk before a security purchase



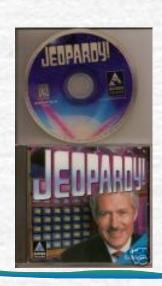
6. Estimated to cost corporations average USD \$3M to comply



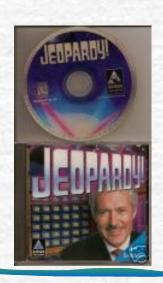
7. 2005 proceeds estimated to exceed those of illegal drug trade



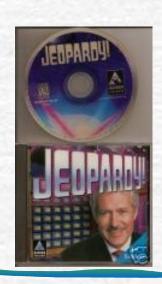
8. 2/3 fail to live up to expectations



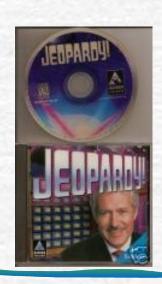
9. More likely to steal your personal data



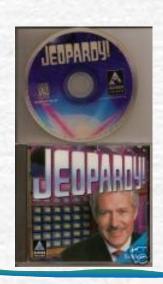
10. Commit more than 70% of unauthorized access



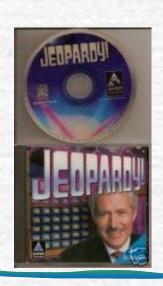
11. Agreed to step up enforcement of intellectual property rights



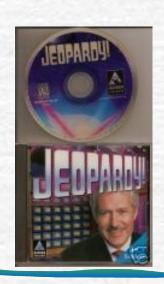
12. Return on investment is proportionate to preparation



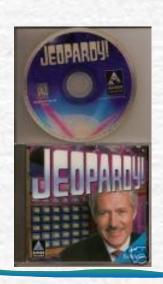
13. About 3% of employees admit to this Internet practice despite company ban



14. Most consumers never turn this on for their wireless access point



15. Biggest concern of Internet Protocol telephony customers worldwide



"Computer security has become the single most important topic in the IT world.

...Security budgets have outpaced overall IT expenditures..."

"A Security Plan With Teeth", CFO-IT Magazine, Spring 2005



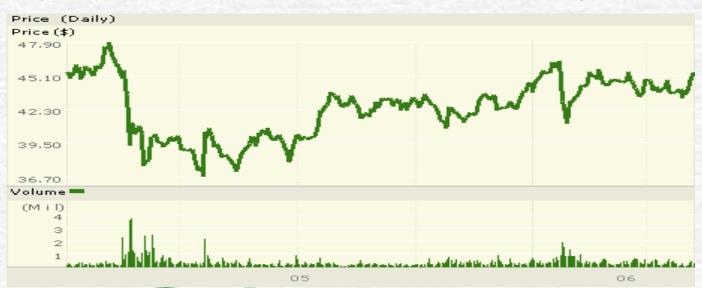
### Benefits

- Plan for and align security strategically to future risks and trends
- Increase your credibility, visibility, and support for your security objectives
- Enhance the success of your security program!
- Grow your career!



## ChoicePoint's stock dropped nearly 10% after announcing that criminals duped it into giving access to its database.

"ChoicePoint Execs Sold Stock Before Leak Revealed" Harry R. Webber of the Associated Press, *The Arizona Republic*, 2/27/05



### It's only money, ...



- ChoicePoint loses \$15M to FCC settlement, \$19M to legal and professional fees and \$5M for consumer redress
  - Security and record-handling policies that were illegal and in violation of consumer privacy rights
- McAfee paid a \$50M fee for mis-stating earnings

http://www.tmcnet.com/usubmit/2006/01/28/1322292.htm



### **Top Drivers**

- Regulatory Requirements
- Fraud
- Convergence
- Business Risk



### Compliance Risk

"Regulatory compliance jumped to 1st place in 2005 as a method for assessing risk before a security purchase."

IT Business Edge, 12/14/05, from"Third Annual Strategic Deployment Survey", Secure Enterprise Magazine, 11/1/05

### Top Spending

- Regulation compliance spending is double the growth of IT spending
- Budgets divert to regulatory compliance through 2010
- Stifles business growth and funding
- Regulation is increasing

"Top 10 Projects in 2006", By Todd Spangler, Baseline Magazine, March, 2006



### Risk - Regulatory

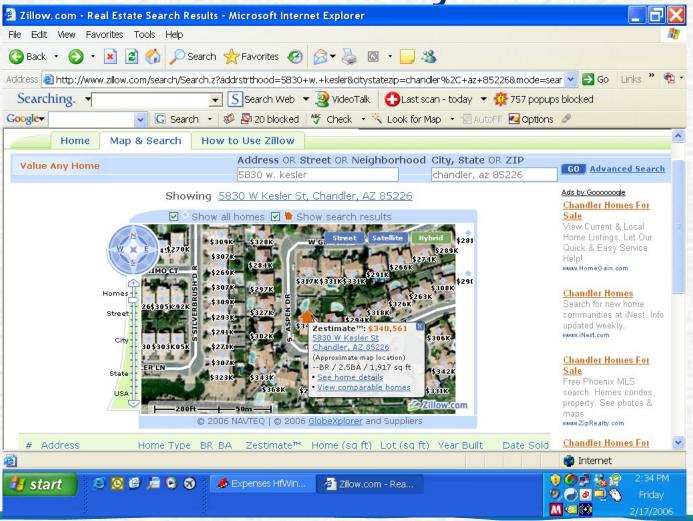
- Privacy
  - Emedical and emerging search
- Import and export trade regulation
- Financials
- Recycling
- Standards control frameworks
- Global, country, state, ...



### "Audit committee is proposed for Mesa Public Schools"

The Arizona Republic, August 6, 2006

### Privacy



### Monitoring



- Surveillance
- Monitor Internet usage
- Conduct Background checks
- Monitor employee compliance with policies and procedures



## "Phone tap surveillance laws OK'd in Hong Kong"

The Arizona Republic, 8/6/06

## "ID Chips Not Just for Pets Anymore From CNN (Topic: RFID), Feb 13, 2006

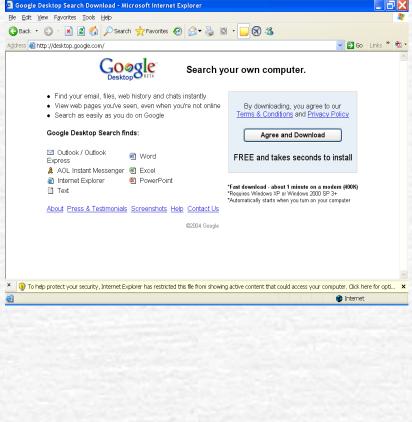
Tiny silicon chips were embedded into two workers who volunteered to help test the tagging technology at a surveillance equipment company.

http://ct.enews.cioinsight.com/rd/cts?d=188-303-1-20-91746-38620-0-0-



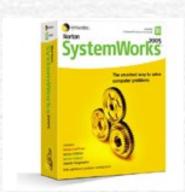
### Online Search





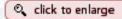
### What are You Throwing Out?

















# "Executives International estimates that it will cost corporations an average of \$3 million to comply with the rule"

"Sarbanes-Oxley Delay Granted", Deborah Solomon, Wall Street Journal, 3/6/05

#### New crime frontier moved online

- Identity theft
- Organized crime
- Extortion
- Auction fraud
- Hackers



#### **Online Criminal Extortion**

"2005 cyber-crime proceeds estimated to exceed those of illegal drug trade"

> "2005 Labeled Worst Year for Computer Break-ins", By Jon Swartz, USA Today, in The Arizona Republic, 1/1/06

- Online gambling sites
- Small businesses
- Executive officers
- Banks and online retailers









- "According to the Merchant Risk Council, retailers that don't manage credit card fraud can have charge-back percentages in the double-digits."
  - CSO Magazine, December, 2005
- Large black market for stolen credit card details



#### Indicators of Insider Fraud

- Company performance lags behind peers
- Performance has sudden strong increase
  - High percentage of stock option compensation to CEO

"Fraud Factors That a Company Could Be Cheating", CFO Magazine, November, 2005, P. 23



#### Scams & Fraud

Description Average Victim usp Cost

Nigerian money offers usp \$6937

Phony checks (and money usp \$4361 orders and cashier's checks)

Lottery scams usp \$2619

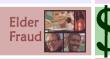
Work-at-home schemes usp \$1785

Advance-fee loan scams USD \$1426

that guarantee credit

The Arizona Republic, 1/30/06, Rick DeBruhl of Call 12 for Action









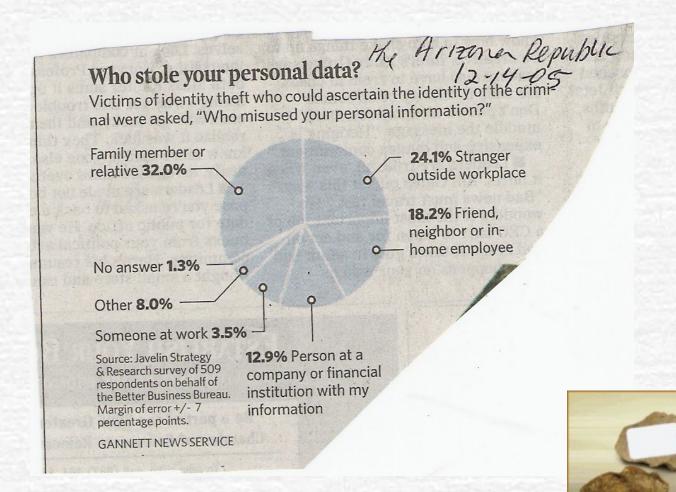
"According to Gardner, more than 70% of unauthorized access to data is committed by an organization's own employees."



"Five Common Insider Threats & How to Mitigate Them", by Kevin Beaver, SearchSecurity.com, 1/16/05







"Despite bans on Internet gambling by most corporations, about 3% of employees admit to the practice."

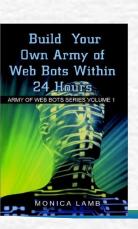
Internet Gambling Jackpot", *Trends eMagazine*, April, 2005





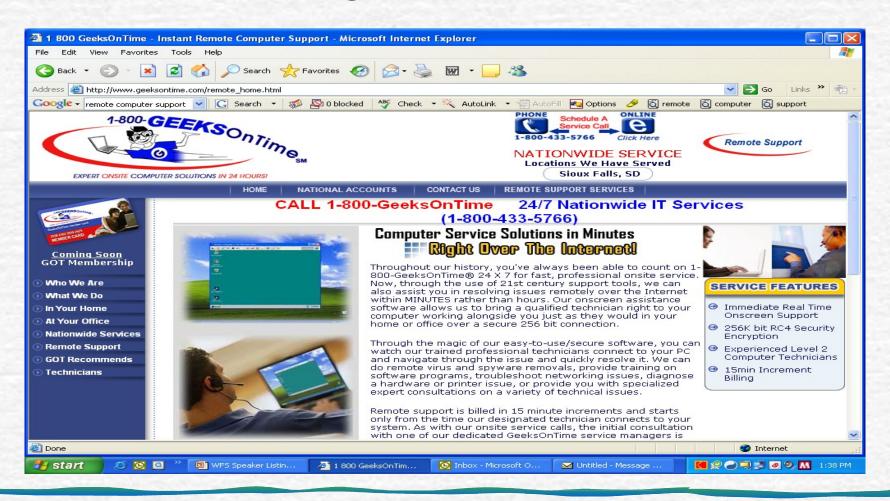
#### Home Users

"Bots are often precipitated by unsecured always-on broadband connections, ..."



"How to Tell if You Have Bots", CSO Magazine, December, 2005

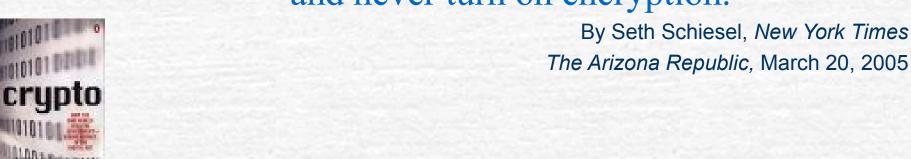
#### Remote Management of Home Network



#### "Thieves Tap Wi-Fi Networks With Ease"

"Connections are being commandeered for child pornography, fraud, death threats and identity and credit-card theft."

"...Most consumers who spend the \$60 to \$80 for a wi-fi router are just happy to make it work at all and never turn on encryption."





#### Risk - Intellectual Property



- Easy to steal trade secrets
  - Trademark and trade secret protection and enforcement
  - Loss of R&D, marketing plan, supplier chain, ...
- Global counterfeiting
  - "...Sale of bootleg products is estimated at to account for up to 7 percent of global trade..."

CSO Magazine, Dec/ 2004, "Top Billing: News From Inside the Beltway"



## Counterfeiting Growing:

"Imitation is the sincerest form of flattery."

- Elevators
- Consumer goods
- Jeans -
- Golf clubs
- Printer cartridges
- **Chips**
- Software & Hardware
- Phony formula cigarettes
- Bogus Budweiser

- Automobiles
- Car parts
- Rejected parts resold as originals
- Music
- Movies
- Entertainment
- Medicine
- Pharmaceuticals
- Prescription drugs



# "China Product Piracy May Bring Trade Actions"

March 4, 2006, The Arizona Republic

"China is failing to do enough to prevent growing product piracy and could be forced to answer formal complaints over it to the World Trade Organization if it doesn't take more aggressive action,..."



"... the Chinese agreed to require that computers use legal software and to step up enforcement of intellectual property rights. They also pledged to close Chinese plants that are producing pirated CDs and DVDs."



"China Agrees to Crack Down on Software Piracy", The Arizona Republic, 4/12/06

# "Microsoft Chairman Bill Gates said ... that beating software piracy in China and India and getting compliance up to U.S. and European levels would take 10 years"

Reuters, Published on ZDNet News: 1/27/06

http://news.zdnet.com/2100-3513\_22-6031952.html

#### What Issues Will Affect Shareholder Value?

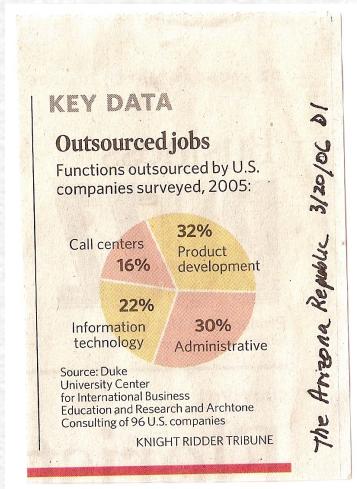
- #1 41% Job Loss & Off-shoring
- #4 26% Privacy & Data Security

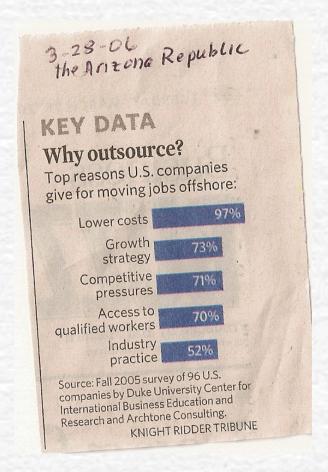
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#### 2005 US Outsourced Functions





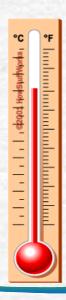
## Merger Mania

- ConsolidatingIndustries
  - Banking
  - Telecommunications
  - Software: Business app (eg.: CRM, SAP)



- Benefits
  - Increase sales
  - Grow market share
  - Spread risk
  - Gain cost savings synergies
  - Fill holes in product or service offerings
  - Get bigger





#### M & A Drivers

- Confidence
- Lots of corporate cash
- Low interest rates & inflation
- 2/3 of M&A fail to live up to expectations

Business Briefings, November, 2005

#### Risk - Disasters

- Business continuity planning for core systems, processes, people
- "What do you lose?
- "How much downtime can you afford and for how long?"



http://explorer.altopix.com/map/ vsv2oh/Palo\_Verde\_ Nuclear Power Plant.htm



http://explorer.altopix.com/map/4bgek3/1/360/Hoover\_Dam.htm?order=date

#### Florida's Hurricanes

"Overall return on investment was directly proportional to preparation.....Companies that has focused solely on disaster recovery planning—without including a plan for full business continuity --were affected more."

"Up and Running:, John Medaska, CSO Magazine, Dec-2004



http://meted.ucar.edu/hurrican/strike/text/dz dsc.htm

#### Edge Security – IP Telephony



ITAA Newsletter "Innovation at the Edge", Mark Uncapher IT Observer, Monday, 6 March 2006 14:07 EST

- "Security fears are the biggest concern of internet protocol (IP) telephony customers worldwide, ..."
- Business continuity planning for telephone network

#### Technology

- Wireless
- Laptops overtaking desktops
- Portability and mobility
- iPod bootable device
- Storage
  - Lock down devices to standard configuration





#### Afghan market sells US military flash drives

Bazaar security breach

By John Leyden, Published Tuesday 18th April 2006 12:12 GMT http://www.theregister.co.uk/2006/04/18/afghan\_market\_security\_breach/

#### **Related stories**

Stolen VA laptop sold off 'back of a truck' (6 July 2006)
Laptop with veterans' data recovered intact (30 June 2006)
White House calls for improved laptop security (28 June 2006)
NHS mobile data security is pants (28 June 2006)
US veterans' data exposed after burglary (23 May 2006)
Stolen laptops hand hackers keys to the kingdom (25 April 2006)
PwC warns of WEEE complexity (22 November 2005)
MoD suppliers' laptop turns up on rubbish tip (26 April 2005)
Police hard drive sold on eBay (7 April 2005)
Investigators uncover dismal data disposal (17 February 2005)
Oops! Firm accidentally eBays customer database (7 June 2004)



http://www.defendamerica.mil/photoessays/june2003/p062003a1.html



- Converged technology infrastructure
  - Network, alarms, voice, video, physical and logical access
  - Home: Computer, phone, TV, Lights, air conditioning, camera, stereo, home security, ...
- Collaboration, device-to-device, ...
- Biometrics mainstream in 10 years
- Integrated security products



# "Pirate Radio Disrupting Flights at Miami Airport"



"Airline pilots departing from Miami International Airport are getting an earful of something unexpected: Hi-hop tunes from a pirate radio station that sometimes interfere with their communications with the control tower. Authorities traced the signals to an antenna at a nearby warehouse but did not find the disc jockey"

The Arizona Republic, 3/20/06







#### True or False?

- You lack credibility
- People tune you out
- You're ignored when you talk
- People delete your emails
- No one listens in meetings
- People avoid you
- No one does what YOU want
- People wonder what you do
- Clients ask for someone else
- Eyes glaze over
- People call your manager to complain
- Customers see you as condescending
- Your career stalls
- You never get the cool assignments

- You have management's ear
- People listen when you talk
- You have credibility
- You speak with authority & power
  - People respond to your emails
- You influence people to support your projects
- People comment on how well you write and speak
- People ask you how you learned to speak so well
- Customers love working with YOU
- Clients ask for you by name
- You receive recognition all the time for your accomplishments
- You are asked to showcase company at Japan's PC Expo



#### Communication



"I have met so many technical people who cannot speak English..."



Nancy Gerber, in Speakernet News Teleseminar, "What's the Matter With Your Web Site?" "Perhaps one of the most frustrating aspects
of my job is receiving a media announcement or
press release written in what appears to be
English but is actually in another language
that I've dubbed techno-babble

(AKA Flakese)."

"Confusion does not build trust!"

2/20/02, Techno-Babble Trap *By Denise Culver* A recent Allegiance Telecom press release shows the dangers of avoiding English



#### **What Results Do You Want?**



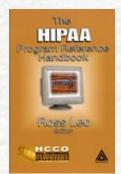
- Using email to request action or report progress and issues
- Progress reports to inform stakeholders of actions, issues and plans.
- State of Security Report
- Audit Reports to Management
- Strategic plans and objectives
- Support for budget, programs, staff



# How are you communicating compliance & policy?









www.salon.com/ books/feature/ 2002/02/13/bookstores/

## Is your career lukewarm?



## Is your boat sinking?



http://news.bbc.co.uk/1/hi/england/tyne/3861481.stm, July 2, 2004, Lifeboat crew spray burning boat

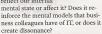
#### THORNTON A. MAY

#### Appearance Matters, Even in IT

OES what you wear to work really matter? Yes, and quite a lot, according to preliminary data from a multivear study of IT leadership best practices at the IT Leadership Academy (www. itleadershipacademy.org). One thing that the study has uncovered is that virtually all high-performing IT organizations aggressively manage the perception of IT in the minds of key constituents: Great IT leaders manage their own brand and the brand of IT. A key and surprising part of such brand management is how IT dresses.

Anthropologists and historians have long known that clothing and costume

are key elements of culture. In the realm of IT scholarship, though, very little energy has been devoted to issues of dress - what we wear, why we wear it, how we wear it. Not much has been written about the psychological aspects of IT fashion. For example, how does what we wear reflect our internal



According to the IT Leadership Academy research, in organizations where IT looks like the business wearing the same sorts of clothes as people on the business side of the organization - alignment is better and performance improves. This unexpected finding gives rise to a rich and rarely mined vein of sociological, anthropological and psychological

We were guided and aided in this new research area by fashion scholar Valerie Steele, chief curator and acting director of the museum at the Fashion Institute of Technology in New York. A preliminary examination revealed

all kinds of fascinating insights:

■ Women in IT dress better than men in IT (which may explain the accelerating ascendancy of women into C-level

■ The different tribes of IT have different costumes. IT sales folks are suited up, those in break-and-fix roles tend to wear mid-dress pants and golf shirts, security folks remain tragically out of step with sartorial norms, and contracted technology consultants tend to wear collared dress shirts and business-casual wear.

■ High-performance, image-aware next-generation IT executives have discovered the wonders of affordable bespoke British tailoring. There's a reason they call those things "power suits." (It isn't too surprising that these execs often choose Whitcomb & Shaftesbury of Savile Row, The tailor's principals, Suresh and Mahesh Ramakrishnan, are IT heroes, Suresh having been a driving force behind the state-of-the-art IT risk management algorithms used so successfully at Goldman Sachs, and Mahesh is a very successful systems integrator.)

What with wearable computers and the iPod as accessories, IT itself is now a fashion industry of sorts. But IT executives still aren't viewed as fashionable. Quite conversely, IT people - at least from the point of view of the creators of popular culture (e.g., movies and TV ads) - remain fashion-challenged. The dominant image of an IT guy remains the egregiously overweight, ethically challenged and destined-to-be-eaten programmer in Steven Spielberg's Jurassic Park. This stereotype of poor personal hygiene and sophomoric tastes in slovenly clothing must change if the profession is to evolve. As one health care CIO explained to us, "As always, and as in any other profession, the most important skill sets are the social ones." @ 52952

DebbieChristofferson@earthlink.net

# Security Careers of Future

NOLYHOUS P. C.F.E. SHE

- Risk Officer
- CISO evolves beyond techie
- Converged role: CSO & CISO
  - Corporate Security Officer & Corporate Information Security Officer
- Forensics
- Certifications
  - CFA Certificated Forensics Accountant
  - CISSP, CISA, CISM, ...
  - Security clearances





#### **Tech Trends 10 Years**

- Nanotech
- Struggle to land best talent
- For competitive advantage, 70% of technology executives have an eye on entrepreneurial startups, as source of new ideas, new technology, new talent, and new partnerships

PWC Survey of executives in technology in 34 countries, in Executive Connection Technology series, According to Business Briefings, November, 2005

### Cyber Insurance

- •"Written insurance premiums doubled in 2005 since 2003."
  - •"Inside Business Shock Absorbers, By Maryanne Murray Buechner, Time Magazine, March/06
- •To qualify, company must comply to internationally accepted security standards.
- •"Why transfer risk to insurance companies who have weaker balance sheets than you do?"

"Winds of Change, by Russ Banham, CFO Magazine, Dec/2005, from Stephen Cross, CEO of AON Captive Services Group





- "More data will be created in next three years than was produced in last 40,000.",
- "Reef the Mains, Storm Jibs Ready", by Victoria Ho, CIO Asia Ng quote from University of California (Berkley)

#### "You really need a revolution,

....in the IT industry.... If engineers built bridges as software developers build software, there wouldn't be a bridge standing.



Mary Ann Davidson, Oracle CSO, "Security Wire Perspectives", Vol. 6, No. 93, December 6, 2004 by *Information Security Magazine* 

#### The Future of Software Security

- Secure tools for software development, code verification and analysis are starting to take off.
- Programming languages are developing that make mistakes more difficult, in memory allocation bugs and locking errors.
- Defense in depth is expanding to limit hacker damage: No-execute flags in processors, software emulation, and randomizing the location of objects in memory.
- Users create the weak link today, and you can't effectively protect against them. Operating system software of the future can force behavior using system-enforced policy.
- Programmers need to write code that is reliable, usable and manageable, and can be proven to be secure.
- Security needs to be implemented in software development tools. This also increases programmer productivity by eliminating tedious tasks such as memory management, and identifying and tracking bugs.

Summarized from: "The Next 50 Years of Computer Security: An Interview with Alan Cox" by Edd Dumbill, an editor at large for O'Reilly Network,, 09/12/2005





- Regulations drive security
- Security becomes a contractual requirement
- Counterfeiting and piracy create new battleground
- Opportunities open for CSO/CISO with business skills



## Sign-up – No Cost to you!

- Signup for the latest in management security strategy!
- Security Management Briefings (15 issues/yr)
- Security Strategy Expert Interview
  - Monthly telephone seminars on leading edge security strategy with leading industry experts.
  - Send email to DebbieChristofferson@earthlink.net , subject: "Security Strategy"
- Topics you'd like to see?

## Request Free Report

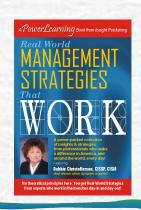
"Security Management Strategies That Work for Any Company on Any Budget"

"50 Tips to Increase Security Awareness"

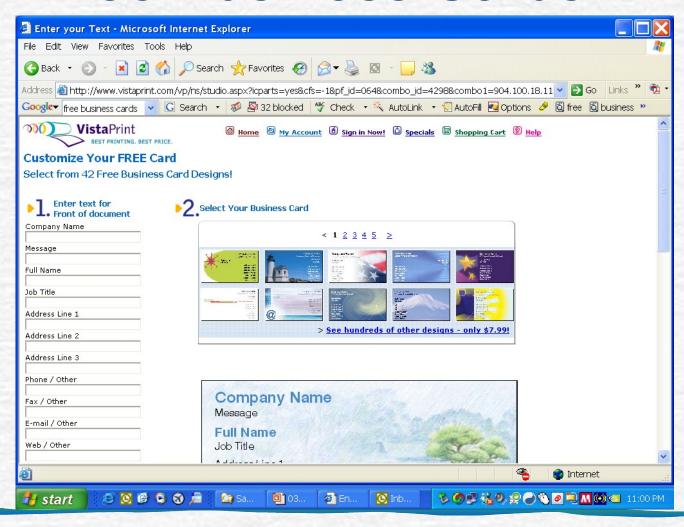
...Or for other assistance,

Send email with subject to:

DebbieChristofferson@earthlink.net



#### Free Business Cards





# Answer Key Security Jeopardy - What is?

- 1. Security
- 2. Counterfeiting
- 3. Choicepoint
- 4. McAfee
- 5. Regulatory compliance
- 6. Sarbanes-Oxley
- 7. Organized crime
- 8. Mergers & Acquisitions

- 9. Family member or relative
- 10. Employees
- 11. China
- 12. Business continuity planning
- 13. Internet gambling
- 14. Encryption
- 15. Security





#### Debbie Christofferson, CISSP, CISM

- Debbie knows security from the ground up, based on 20 years first hand Fortune 500 experience across the U.S., Europe, and Asia with Intel Corporation.
- She currently manages her own business, Sapphire-Security Services LLC, which increases the results and effectiveness of security through management consulting, program leadership, workshops and speaking.
- She's a published author and writes a column for technology trends and careers.
- Debbie is a Board Member for Arizona ISSA & SDSUG, and ITT Technical Institute's IT Advisory Committee.
  - She's a member of the National Speakers Association, the Arizona Technology Council, Organization of Women in International Trade, Information Systems Audit and Control Association, Infragard, and the Alliance of Technology and Women.

